

Fibropapillomatosis what is it?



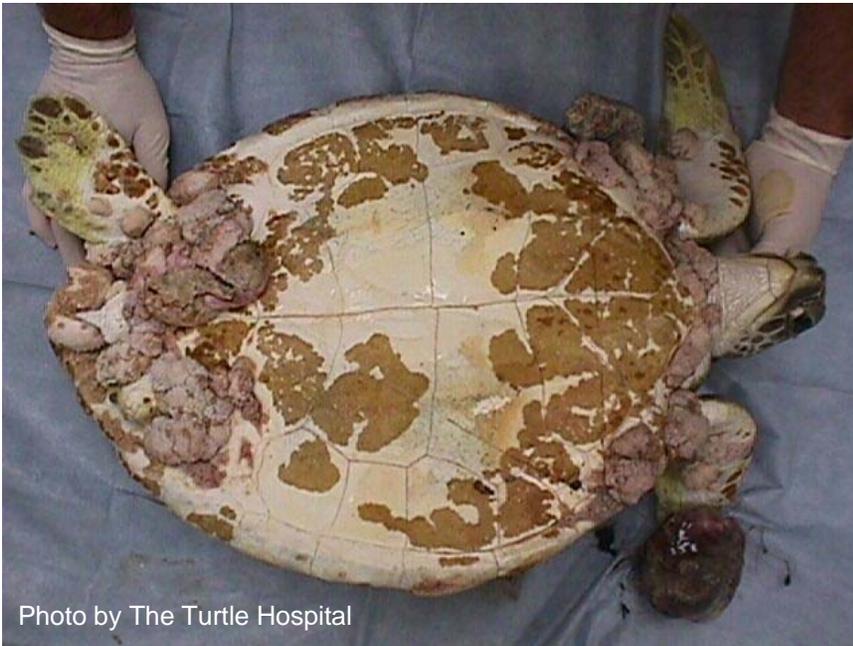
Photo by The Turtle Hospital



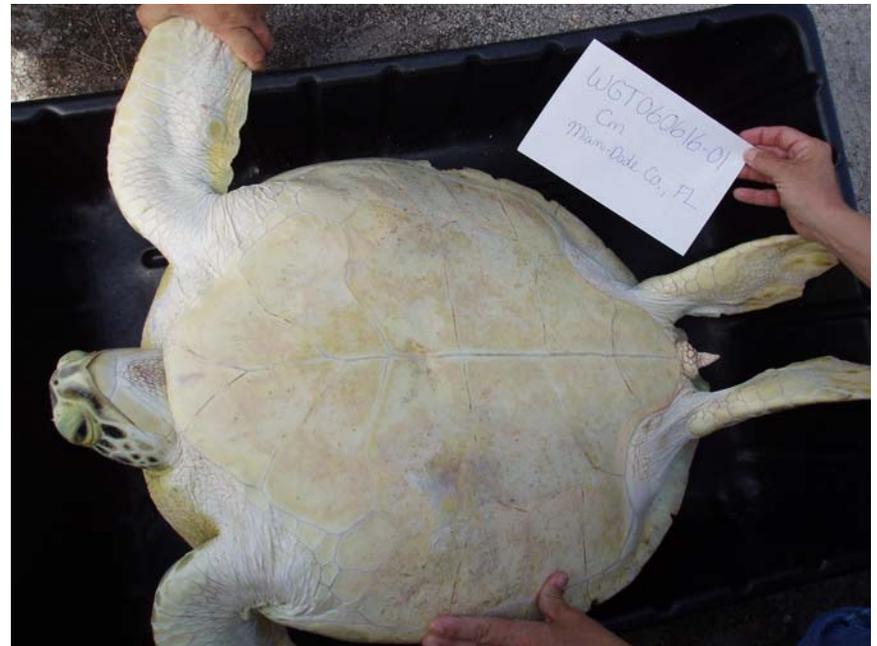
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FP turtle

Fibropapillomatosis or FP

Fibropapillomatosis- a disease which causes the growth of bulbous tumors on soft tissue.



Animal afflicted with FP.



Animal not afflicted with FP.

Its all about the tumors..... How to recognize FP.

Location



Texture

Size

Color

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External Tumors

Location: Most often seen externally around the axial (armpit), inguinal (groin), neck, tail and eyes. Also tumors have been found around the mouth and between scutes on the carapace and plastron.



Photo by The Turtle Hospital

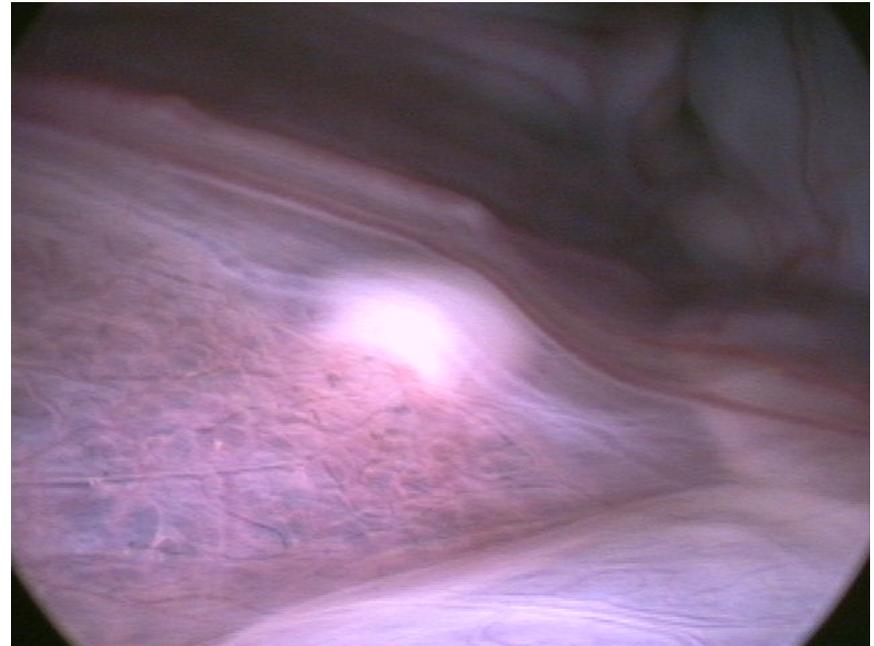
Internal Tumors

Known to occur in the lungs, kidneys, liver, intestines and inside the mouth.

Besides inside the mouth, internal locations can only be examined by radiograph (x-ray) or endoscopy and after death a necropsy.



White, round dense spots on radiograph show presence of internal tumors.



Internal tumor on the lung as seen during endoscopy.

Photos and descriptions by The Turtle Hospital

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Tumor Size

Size: variable, <1cm to “as large as a football, the largest weighed over 3 pounds”.



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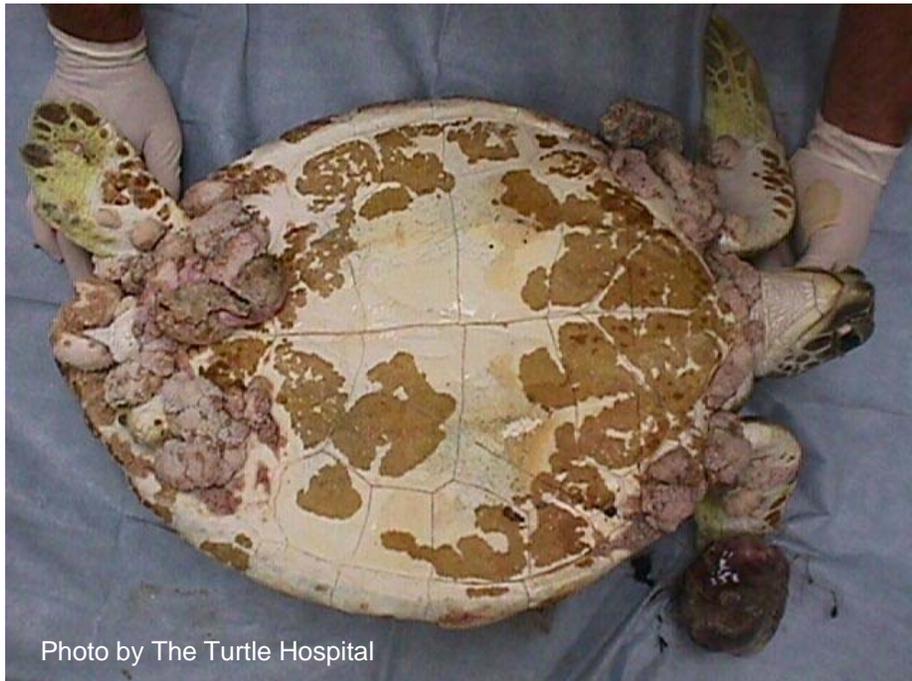
Tumor Texture and Color

Texture: The surface of the tumors typically appears warty or cauliflower-like with many folds.



Color: variable, nearly normal skin color, pink, purple, or dark grey- black

Other mentionables....



Leech eggs covering the plastron and some ventral skin



FP tumors covered with tiny barnacles.

Observations to note or photograph.

- General number of tumors
- Tumor location
- Tumor size (1cm, 2-5cm, 6-10cm, over 10cm)



How do these growths effect the turtles?



The tumors grow on various areas on and around the eye, resulting in blindness and starvation.

Affected animals are anemic and at severe stage of disease are lethargic and emaciated (Jacobson, 1990).

Areas of Hawaii and Florida with over 50% of all green turtles affected.

“Pre-eruptive eyes have anomalies that are consistent with the onset of FP. The earliest of these is a whitish discoloration that forms a line along the leading edge of the conjunctiva, or forms spots on the conjunctiva, or a combination of both.”

“The white discoloration along the leading edge advances to swelling, and discoloration on the conjunctiva also expands. Eventually, these abnormalities turn into protuberances that manifest as tumors.”



Photo and text excerpted from www.turtles.org/eyes/eyes.htm
Bennett et al. The eyes have it: Manifestation of ocular tumors
in the green turtle ohona of Honokowai, West Maui, Hawaii.

“Tumors almost always first erupted in the posterior of the eye. If both corners erupted simultaneously, the posterior tumor was usually the larger.

As tumors progress, they appear to be primarily white or pinkish in our images, with a fibrous, wart-like surface, and a polypoid or peduncular form, consistent with the histologic description of ocular tumors prepared by Brooks et al. (1994)”



Photo and text excerpted from www.turtles.org/eyes/eyes.htm
Bennett et al. The eyes have it: Manifestation of ocular tumors in the green turtle ohona of Honokowai, West Maui, Hawaii.

“If the animal is lucky, the eye tumors will eventually start to regress. The size stabilizes and starts to decrease.



The colour takes on shades of grey, which darken with time. The surface becomes smoother. Eventually, the tumor recedes and darkens so much that it is hard to observe from a distance. This is the condition we refer to as a "black pearl."

Photo and text excerpted from www.turtles.org/eyes/eyes.htm Bennett et al. The eyes have it: Manifestation of ocular tumors in the green turtle ohona of Honokowai, West Maui, Hawaii.

“It is possible for an eye tumor to disappear entirely, or it might leave a discolored conjunctiva similar to that of an incipient tumor.

It is distinguishable from the onset of FP, however, because there is an important difference: the conjunctiva of an eye that has recovered from FP appears to be scar tissue, and no longer has the pleats characteristic of a normal eye. This lack of pleating is seen in every regression case for which we have macro photos.”



Photo and text excerpted from www.turtles.org/eyes/eyes.htm
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FP is known to be transmitted between captive turtles through skin scarification or cutaneous injection (Herbst et al, 1995).

The route of transmission in wild animals is unknown.

<http://sacs.vetmed.ufl.edu/wildlife/fibpap.html>

As a result....

PERMIT REQUIREMENT:

Separate equipment will be used for turtles displaying fibropapillomas.

You will be supplied with a spare tape measure, tagging pliers, PIT tag applicator, and plastic bags for the PIT tag reader.

Do not use calipers on fibropap turtles since there is no spare.

Wear gloves.... Properly dispose of contaminated gloves.

Handling of FP exposed equipment

- Discard the bag for the PIT reader after contact with a FP turtle.
- Disinfect and quarantine all other equipment.
- Label the quarantined equipment as exposed to FP.
- Return quarantined equipment to your observer coordinator.
- Reuse of *disinfected* quarantined gear is allowed only on another animal displaying FP. Then disinfect and quarantine as before.